

BAK, Stefan; OSTROWSKA, Aleksandra; SOCHA, Wladislaw; TUTAJ, Ludwika

Effects of arterial blood pressure on the development of experimental arteriosclerosis. Polski tygod. lek. 13 no.12:421-425 14 Mar 56.

1. Wpływ tetniczego ciśnienia krwi na rozwój dosiadczalnej miażdzy cytetnic Z I Kliniki Chirurgicznej A. M. w Krakowie kierownik; prof. Bogusz J Z III Kliniki Chor. Wewn. kierownik: prof. Aleksandrowicz J i z Zakładu Med. Sadowej kierownik: prof. J. Onlbruch.

(ARTERIOSCLEROSIS, exper.

eff. of arterial blood pressure on develop. in dogs (Pol))

(BLOOD PRESSURE

eff. of arterial pressure on develop. of exper. arteriosclerosis (Pol))

CEGIELSKI, Mieczyslaw; JASIENSKI, Stefan; SOCHA, Wladyslaw

Four cases of resection of the stomach with partial left hepatic lobectomy for cancer. Polski przegl. chir. 28 no.12:1265-1276 Dec 56.

l. Z II Kliniki Chirurgicznej Akademii Medycznej, Kierownik:
prof. dr. K. Michejda, i Instytutu Onkologii w Krakowie
Dyrektor: doc. dr. H. Kolodziejska. Adres autora: Krakow, ul.
Copernika 21.

(STOMACH NEOPLASMS, compl.
invasion of liver, surg., gastric resection with hepatic
lobectomy (Pol))
(LIVER, neoplasms
invasive from stomach, surg., hepatic lobectomy with
gastric resection (Pol))

KOPERA, Zygmunt; LENCZYK, Maria; SYZMANOWICZ, Barbara; SOCHA, Wladyslaw

Value of radiological examination in the evaluation of completeness
of total excision of gastric cancer. Polski przegl. chir. 31 no.3:
257-264 Mar 59.

1. Z Instytutu Onkologii w Krakowie Dyrektor: doc. dr H. Kolodziejksa.
Adres autorow: Krakow, ul. Garncarska 11.

(GASTRECTOMY, in var. dis.
cancer, x-ray evaluation of complete excis. of neoplastic
foci (Pol))

SOCHA, Wladslaw; URBAN, Anna

The problem of the malignant degeneration of gastric ulcer in the
light of patho-clinical data. Nowotwory 11 no.3/4:279-294 '61.

l. Z Instytutu Onkologii — Oddzial w Krakowie Dyrektor: doc. dr.
med. H. Kolodziejska Z II Kliniki Chirurgicznej AM w Krakowie
Kierownik: prof. dr med. J. Oszacki.
(PEPTIC ULCER pathol) (STOMACH NEOPLASMS pathol)

URBAN, Anna; SOCHA, Wladyslaw

Pathomorphology of the gastric mucosa in peptic ulcer and gastric cancer. Nowotwory 11 no.3/4:261-278 '61.

1. Z Instytutu Onkologii — Oddzial w Krakowie Dyrektor: doc. dr med. H. Kolodziejska i z II Kliniki Chirurgicznej AM w Krakowie
Kierownik: prof. dr med. J. Oszacki.
(PEPTIC ULCER pathol) (STOMACH NEOPLASMS pathol)

URBAN, Anna; SOCHA, Wladyslaw

Morphological picture of the gastric mucosa in patients with duodenal ulcer, gastric ulcer and gastric cancer. Polski tygod. lek. 16 no.43:1647-1650 23 0 '61.

1. Z Instytutu Onkologii Oddzial w Krakowie; dyrektor: doc dr med. Hanna Kolodziejska i z II kliniki Chirurgicznej A.M. w Krakowie; kierownik: doc. dr med. Jan Oszacki.

(PEPTIC ULCER pathol) (STOMACH NEOPLASMS pathol)

SOCHA, Wladyslaw; URBAN, Anna

Studies on the pathomorphology of cancers developing from ulcers.
Polski tygod. lek. 16 no.44:1685-1688 30 0 '61.

l. Z Instytutu Onkologii Oddzial w Krakowie; dyrektor: doc. dr med.
Hanna Kolodziejska i z II Kliniki Chirurgicznej A.M. w Krakowie;
kierownik: doc. dr med. Jan Oszacki.
(STOMACH NEOPLASMS pathol) (PEPTIC ULCER pathol)

SOCHA, Wladyslaw; MADEK, Zbigniew; POPCZYNSKA-MARKOWA, Maria; KOBILOVA, Zofia

Endocarditis in infants. Przegl lek 29 no.2:140-144 '67.

I. Institute of Forensic Medicine of the School of Medicine, Krakow.

Head: Prof. Dr. J. Olbrycht, and I Children's Clinic of the School
of Medicine, Krakow. Head: Prof. Dr. T. Giza.

Glass ✓

AC^S SOCHACKA, I.

Investigations of thermometer glass. I. SOCHACKA, *Bud
Gospodarki Uzudu Miar* (in *Przeglad Techn.*, 1951, No. 2), 1 [1] 2
(1951). Investigations on thermometer glass started at the Main
Office of Standards have a twofold purpose: (1) systematic con-
trol of the quality and physicochemical properties, enabling the
industry to reach production of thermometer glass having definite
reproducible properties, and (2) improvement in quality and use
of local raw materials. Especially important is the aging of
glass; investigations to date have resulted in inaccurate readings
of several degrees, which led to the development of Jena ther-
mometer glass 10⁰⁰. At lower temperatures, results obtained
were fairly good - 2 figures. A.D.I.

P/046/60/005/011/015/018
D249/D303

AUTHORS: Sochacka, R., and Szuchnik, A.

TITLE: Synthesis of dibenzyl telluride

PERIODICAL: Nukleonika, v. 5, no. 11, 1960, 789

TEXT: (Abstract - Report No. 149/XIII (IBJ - Institute of Nuclear Research, PAS)): A method of preparing dibenzyl telluride from tellurium was elaborated. In the first stage sodium telluride is formed from tellurium followed by benzylation using benzyl chloride. The synthesis takes approx. 30 min. and the yield is 90 %.
[Abstractor's note: Complete translation].

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L 42293-65 EWP(m)/EPF(c)/EPR/EWT(1)/EWT(m)/FCS(k)/T/EWA(d)/EWA(1) Pd-1/Pr-4/Ps-4
ACCESSION NR: AT5008299 DJ P/2532/64/000/023/0063/0072 37
38

AUTHOR: Sochacka, Z. (Sokhatskaya, Z. Master engineer)

TITLE: Hydrostatic air-lubricated bearings

SOURCE: Warsaw. Instytut Lotnictwa. Prace, no. 23, 1964, 63-72

TOPIC TAGS: hydrostatic bearing, air lubricated bearing, journal bearing, thrust bearing, bearing design, laminar flow

ABSTRACT: After a discussion of the advantages and drawbacks of air-lubricated bearings and a brief history of their development, the paper presents an outline of the theory of air-lubricated thrust and journal bearings to the extent required for design purposes. The theory of laminar gas flow through a narrow conduit is given and the approximate pressure distribution for this case is analytically determined by a simplified method which assumes that viscosity forces exceed the forces of inertia and that friction forces at the wall are predominant. A curve of flow intensity versus that height of a rectangular conduit is shown and compared with experimental results. The following types of air-lubricated bearings are analyzed and discussed; a journal hydrostatic bearing with air supplied through radial holes in the bearing, a journal hydrostatic bearing having a recess in the bearing bushing, and hydrostatic thrust bearings. Each type of bearing is illustrated and

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ACCESSION NR: AT5008299

for each type some design formulas are derived. The problem of stability of hydrostatic air-lubricated bearings is discussed. An experimental model of an air-lubricated journal bearing of conventional design and having four air-inlet holes is described; its drawing and photograph is shown. Its bushing was made of brass and its shaft of steel. With air delivered at 5 atm. pressure, speeds up to 80,000 rpm were attained. Lowering the air pressure to 2 atm caused vibrations of the shaft. Figs. 1 and 2 of the Enclosure show experimental curves of the bearing capacity as a function of air supply pressure. The experimental results are discussed. Crig. art. has: 20 figures and 53 formulas.

ASSOCIATION: Instytut Lotnictwa, Warsaw (Institute of Aeronautics)

SUBMITTED: 00May64

ENCL: 02 SUB CODE: IE, PR

NO REF SOV: 001

OTHER: 009

Card 2/4

POLAND / Chemical Technology. Chemical Products and
Their Application--Instruments and Automation H-3

Abs Jour: Ref Zhur--Khimiya, No 3, 1959, 8551

Author : Sochacki, A.

Inst : Not given

Title : Measuring Devices

Orig Pub: Przegl. techn., 1958, 79, No 4, 134-139

Abstract: A review of devices and apparatuses for measuring non-electric magnitudes, compiled from exhibits of foreign films, presented at the 26th International Trade Fair in Poznan in the fall of 1957. Apparatuses for control and regulation of temperature, pressure, consumption of gases and fluids, levels, humidity, chemical composition of gases, pH, and

Card 1/2

SOCHACKI, Henryk

Information on traffic accidents and on their consequences
in the city of Warsaw. Cmir. narzad. ruchu ortop. pol. 28 no.4:
365-372 '63.

1. Z Komendy Ruchu Drogowego Milicji Obywatelskiej w Warszawie.
(ACCIDENTS, TRAFFIC) (STATISTICS)

SOCHACKI, J.

"Application of the blocking oscillator to frequency multiplication in
carrier telephone systems."

p. 33 (Prace) Vol. 4, no. 2, 1957
Warsaw, Poland

SO: Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 4,
April 1958

SOCHACKI, Janusz, mgr inz.

Problems of telegraph transmission of Study Commission IX of the International Telegraph and Telephone Consultative Committee (CCITT).
Przegl telekom 34 no.9:263-265 S '61.

1. Instytut Iacznosci, Zaklad Telegrafii, Warszawa.

SOCHACKI, Y.

Preparation for servicing railroads. p. 362. (PRZEGLAD KOLEJOWY, Vol. 5, No. 1^o, Oct. 1953, Warszawa, Poland)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 3, No. 12, Dec. 1954, Uncl.

SOCHACKI, K., Sanocki, B.

Mechanization of the maintenance of railroad lines in the Soviet Union. Pt. 1.
p. 241.
(PRZEGLAD KOLEJOWY I ROGOWY. Vol. 8, no. 11, Nov. 1956, Warszawa, Poland)

SO: Monthly List of East European Accessions (EEAL) LC. Vol. 6, No. 12, Dec. 1957.
Uncl.

SOCHACKI, K.; SANOCKI, B.

Mechanization of the maintenance of railroad lines in the Soviet Union. Pt.2. p.265
(PRZEGLAD KOLEJOWY DROGOWY, Vol. 8, No. 12, Dec. 1956, Warsaw, Poland)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, No. 9, Sept. 1957, Uncl.

SOKHATSKI, Kazimir [Sochaki, Kazimierz], inzh.

Track administration of Polish railroads. Zhel.dor.transp.
41 no.7:24-31 J1 '59. (MIRA 12:12)

1. Nachal'nik Glavnogo upravleniya puti i putevogo khozyaystva,
Varshava. (Poland--Railroads--Tracks)

WIECHNO, Wojciech.; SOCHACKI, Lech.

Case of spontaneous recovery in choledocholithiasis. Polski tygod.
lek. 12 no.14:524-526 1 Apr '57.

1. z Oddzialu Chirurgicznego Szpitala Miejskiego nr 7; ordynator;
doc. dr med. Wojciech Wiechno. Warszawa, ul Universytecka 6 m. 14.
(CHOLELITHIASIS, case reports
spontaneous recovery of choledocholithiasis (Pol)).

SOCHACKI, R.

"Sunday weather in Jelenia Gora", p. 738, (SKRZYDLATA POLSKA, Vol. 10, No. 47,
Nov. 1954, Warszawa, Poland)

SO: Monthly List of East European Accessions, (EEL), LC, Vol. 4, No. 5, May
1955, Uncl.

SOCHACKI, R.

"The Institute of Aviation Elected its Candidates", p. 740, (SKRZEDŁATA
PÓLSKA, Vol. 10, No. 47, Nov. 1954, Warszawa, Poland)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, No. 5, May
1955, Uncl.

BROTHMAN, R.

Open letter concerning dual towing. p. 17.
OKAZJONALNA PUBLIKA, Warszawa, Vol. II, no. 24, June 1955.

cc: Monthly List of East European Accessions, (SIS), EC, Vol. 4, no. 10,
Oct. 1955, Engl.

GOCHACKI, WOJCIECH.

Tłuszcze roślinne jadalne. Warszawa, Polskie Wydawn. Gospodarcze, 1950. 45p.
(Edible vegetable fats. footnotes)

So: Eastern European Accession. Vol 5, no. 4, April 1956

POLAND / Chemical Technology. Chemical Products and
Their Application. Instruments and Automation.

H

Abs Jour: Ref Zhur-Khimiya, No 12, 1959, 42664.

Author : Sochacki Z.

Inst : Not given.

Title : Meters. II.

Orig Pub: Przegl. techn., 1958, 79, No 5, 178-182.

Abstract: The second part is devoted in general to characteristics of the most interesting meters, presented at the XXVI International Commercial Fair in Poznan by the following firms: Siemens, Hartman and Brown, Bopp and Reiter, and others. Among instruments of interest were: a) universal gas analyzer URAS for CO, CO₂, CH₄, NO, NO₂ and other gases with ranges varying from 0-0.005% and up to 0-100%; b) differ-

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H-3

SOCHACKI, Zygmunt, inz.

Foreign made measuring equipment. (To be contd). Przegl
Zwiazek 79 no.4:134-139 F '61.

SHCHIRENKO,N.S., professor, doktor tekhnicheskikh nauk; ISAYENKO,N.F.,
dotsent; SHTEPENKO,V.Z., dotsent; GREBENIK,V.M., kandidat tekhnicheskikh nauk;
SOCHAN,I.F., inzhener; IVANCHENKO,F.K., kandidat tekhnicheskikh nauk

Rotating loader-hurlers and their use in Martin furnace plants.
Vest.mash.35 no.8:13-14 Ag'55. (MIRA 8:10)
(Conveying machinery)

KUBLANOV, N.P., dotsent; SOCHAN, I.F., inzhener.

Temperature of the external surface of chrome-magnesite crowns
of open-hearth furnaces. Stal.pröizv. no.1:102-108 '56.
(MLRA 9:9)

1.Dnepropetrovskiy metallurgicheskiy institut (for Kublanov).
2.Zavod imeni Petrovskogo (for Sochan).
(Open-hearth furnaces) (Refractory materials)

Technical Report

AUTHOR: Lifshits, S.I., Candidate of Technical Sciences and
Sochan, I.F., Engineer. 133-5-4/27

TITLE: From experience in the application of oxygen in 250 ton
open hearth furnaces. (Opyt primeneniya kisloroda v 250-t
martenovskikh pechakh).

PERIODICAL: "Stal'" (Steel), 1957, No. 5, pp. 402-405 (U.S.S.R.)

ABSTRACT: Operating practice used on two 250 ton open hearth furnaces
with chrome-magnesite roofs is outlined: hot metal - 50-55%;
fuel - a mixture of coke oven, blast furnace and producer gas
of calorific value 2 240 - 2 470 kcal/m³ (depending on the
period of operation); maximum thermal load 29.7 mil kcal/hr;
oxygen to flame is supplied through two 25 mm water-cooled
tuyeres; oxygen consumption 8.6 to 26.5 m³/ton (mean 16.6 m³/t);
the combustion air is enriched to 25% of oxygen; for smelting
medium carbon steels (Ct.5; 35; 45; Δ - tube steel) 4 - 6% of
iron ore and 7-9% of limestone depending on the composition of
the hot metal and for mild steels (Ct.2; Ct.3; 10 - tube steel; Ct.4;
20; 20 - tube steel) 7-8% of iron ore and 7.5-8.5% of limestone.
An analysis of the results of 6 months operation (Table 1) with
oxygen in flame indicated that: a) the duration of the heat
decreases by 11.4-12.0% mainly due to shortening of the melting
Card 1/3 period; b) the manganese content after melting and before

SOCHAN, Ladislav

Problems of the reduction of specific consumption of
power. Energetika Cz 14 no. 4: 180-181 Ap '64.

1. Zdruzenie naltovin a azbestocementovych vyrubkov,
Trencin.

SOCHANIEWICZ, L.

More about a training-merchant ship for the Marine School. p.77

TECHNIKA I GOSPODARKA MORSKA. (Naczelnna Organizacja Techniczna, Morski Instytut
Techniczny i Morski Instytut Tybacki) Gdańsk, Poland. Vol.9, no.3, Mar. 1959

Monthly List of East European Accessions Index, (EEAI) LC, Vol.8, no.56
June 1959
Uncl.

SOCHANIEWICZ, L., inz.

The Polish merchant marine achieved 500,000 registered tons.
Przegl techn 81 no.5:13 F '60.

ZYGIELSKI, J.

The steam and condensational system applied to the newsprint machine in the mill in Skolwin. p. 1/
Vol 12, no. 1, Jan. 1956. PRZEGŁAD PAPIERNICZY. Łódź, Poland.

So: Eastern European Accession. Vol 5, no. 4, April 1956

SOCHANSKI, Jan, mgr inż.

Intensified drying and the problem of heat recovery in dryers
of paper machines. Gosp paliw 11 no. 5:177-182 My '63.

SOCHANSKI, Jan, mgr inz.

Use of heat reservoirs in industrial enterprises. Gosp paliw
11 no.9:351-352 S '63.

SOCHANSKI, Jan, mgr inż.; OGÓRZELSKI, Tadeusz, technik; NOWAKOWSKI,
Bronisław, technik

Reconstruction design of the heat recovery installation of a
board machine. Gosp paliw 11 Special issue no.(95):36 Ja '63.

1. Warszawskie Zakłady Papiernicze, Jeziorna.

SOCIAWSKI, Jan, mgr inz.; NOWAKOWSKI, Wrenislaw, technik; GRABOWSKI,
Wojciech, mgr inz.

Improved drying devices of a paper machine. Gosp paliw 11
Special issue nc(95):37 Ja '63.

1. Warszawskie Zaklady Papiernicze, Jeziorna.

GROCHAL, Marian, dipl. ing. (Poland); SOCHANSKI, Jan, dipl. ing. (Poland)

Problems of selecting economically as well as technically w^e'l
based steam parameters from the point of view of technological
consumption. Ipari energia 5 no.3:70 M '64.

L 60058-65 EEC(b)-2/EWT(1)/EWP(b)/T/EWP(t) IJP(c) GG/JD

ACCESSION NR: AP5015228

PO/0053/65/000/005/0228/0231
621.389

22

21

B

AUTHOR: Lagowski, J., Sochanski, J.

TITLE: Possibility of using the field effect in CdS for the design of photosensitive switching devices

7-17

SOURCE: Przeglad elektroniki, no. 5, 1965, 228-231

TOPIC TAGS: switch design, photosensitive switch, light controlled switch, field effect, semiconductor, cadmium sulfide

ABSTRACT: After a brief introductory discussion of the field effect in single crystals, the authors present the results obtained in an experimental investigation of single crystals of CdS obtained from the gas phase at the Instytut Fizyki Bulgarskiej Akademii Nauk (Institute of Physics of the Bulgarian Academy of Sciences) in Sofia. The crystal samples used were in the form of thin plates 1—3 mm wide, 3—8 mm long, and 10—100 μ thick. The measurements were made at room temperature. The method of mounting the samples is shown in Fig. 1 of the Enclosure. Fig. 2 shows the schematic of the measurement setup employed. The spectral distribution of the photosensitivity showed a definite maximum corresponding to the photon energy of 2.40 ev, which is equal to the width of the

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forbidden band in CdS. The dependence of the photocurrent on light intensity was practically linear in the visible range; a conductivity could then be obtained which was greater by a factor of 10^5 than the dark conductivity. Additional results of the investigation are presented in the form of graphs relating the conductivity to time for different values of the transverse voltage, and the conductivity to transverse voltage for different values of light intensity. Both t_5 to t_0 were found to depend on the initial conductivity G_0 ; as shown in Fig. 3, t_0 was found to be strictly proportional to the applied field and to the intensity of the incident light. Origl art. has: 6 figures and 2 formulas. [08]

ASSOCIATION: Instytut Fizyki PAN (Institute of Physics, PAN); Zaklad Elektroniki Ciala Stalego (Department of Solid-State Electronics)

SUBMITTED: 00

ENCL: 03

SUB CODE: EC, SS

NO REF Sov: 000

OTHE R: 001

ATD PRESS: 4058

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L 60058-65

ACCESSION NR: AP5015228

ENCLOSURE: 01

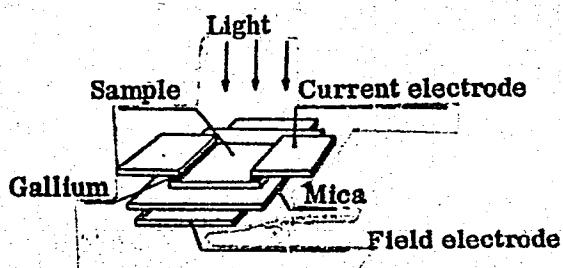


Fig. 1.. The method of mounting the sample

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ACCESSION NR: AP5015228

ENCLOSURE: 02

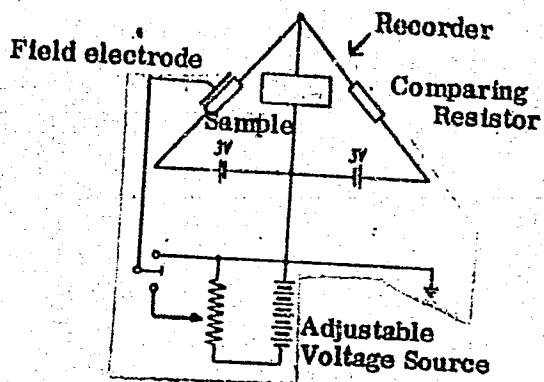


Fig. 2. Schematic of the measurement setup

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ACCESSION NR: AP6015228

ENCLOSURE: 03

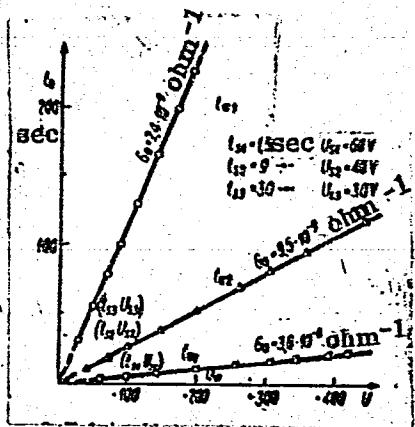


Fig. 3. Experimental dependence of the "on" times,
 t_o , on the voltage, U , applied to the field electrode

Card 5/5

L 21249-66 T/EWP(t) IJP(c) JD
ACC NR: AP6001450 SOURCE CODE: P0/0045/65/028/005/0689/0693

AUTHOR: Lagowski, J.; Sochanski, J.

ORG: Institute of Physics, Polish Academy of Sciences, Warsaw
(Instytut Fizyki PAN)

TITLE: The role of bulk recombination in the field-effect in
illuminated CdS single crystals

SOURCE: Acta physica polonica, v. 28, no. 5, 1965, 689-693

TOPIC TAGS: crystal, single crystal, cadmium sulfide, electron mobility

ABSTRACT: Field-effect in illuminated CdS single crystals is by several orders of magnitude smaller than the carrier (electron) mobility and augments with increasing of light induced conductivity. This can be explained on the basis of a model which takes into account relaxation effects in an RC-system together with recombination of light-excited holes with volume centres. Comparison between the simple theory and experiment permits to determine the majority carrier (electron) lifetime in photoconducting CdS. Orig. art. has: 1 figure and 15 formulas. [Based on author's abstract]

SUB CODE: 20/ SUBM DATE: 04Apr65/ ORIG REF: 001/ OTH REF: 003
Card 1/1

L 20821-66 T/EWP(t) IJP(c) JD
ACC NR: AP6000642

SOURCE CODE: P0/0045/65/028/002/0193/0200

AUTHOR: Lagowski, J.; Sochanski, J.

ORG: Institute of Physics, Polish Academy of Sciences, Warsaw

TITLE: Field effect pinch-off in illuminated CdS single crystals

SOURCE: Acta physica polonica, v. 28, no. 2, 1965, 193-200

TOPIC TAGS: single crystal, electron field, electric effect, plasma
pinch, electric conductivity, light excitation, recombination lumines-
cence, crystal surface, photoconductivity

ABSTRACT: An electric field effect in illuminated CdS single crystals was analyzed. The electric field applied capacitatively to a photoconducting CdS single crystal can decrease its conductance to zero (pinch-off effect). After a certain time, depending linearly on the field applied, the crystal conductance begins to increase. A simple explanation of the effect takes into consideration the recombination of light-excited holes. A model explains why no relation was observed in R. J. Williams' experiment (R. J. Williams, Phys. Chem. Solids, 22, 129, 1961); there were probably no light-excited holes or, if present, they were all covered by the blocking electrode. The authors thank Professor L. Sosnowski for his guidance and valuable remarks, Professor

Card 1/2

L 20021-00

ACC NR: AP6000642

W. Wardzynski and Dr. T. Figielski for their fruitful discussions, and
A. Dmowski for experimental assistance. The samples were supplied by
Dr. S. Kynev, Institute of Physics of the Bulgarian Academy of Sciences
Sofia. Orig. art. has: 6 figures, 21 formulas, and 1 table. [Based
on author's abstract] 2
[NT]

SUB CODE: 20/ SUBM DATE: 02Feb65/ OTH REF: 003/

Card 2/2 *lpc*

SOCHANSKI, R.; SAMEK, D.

5-Hydroxytryptamine level in the rhombencephalon of mice exposed
to high temperatures. Acta physiol. polon 13 no.3:407-411 '62.

1. Z Zakladu Fizjologii Slaskiej AM w Zabrze-Rokitnicy Kierownik:
doc. dr M. Krause.

(BRAIN metab) (HEAT) (SEROTONIN metab)

KUBACKI, Jozef; SOCHANSKI, Roman

Concentration of catecholamines in the brain stem in rats exposed to the effect of thyroxin. Pol. arch. med. wewnet. 34 no.1:39-42 '64.

1. Z I Kliniki Chorob Wewnetrznych Sz. AM (kierownik: prof. dr. J.Lapa) z Zakladu Fizjologii Sz. AM (kierownik: doc. dr. M.Krause).

*

KRAUSE, Mieczyslaw; SAMIEK, Dominik; SOCHANSKI, Roman; HOLOWIECKI, Jerszy

Studies on emotional states induced by conditioned reflexes.
Acta physiol. Pol. 15 no.3:305-311 My-Je '64.

I. Z Zakladu Fizjologii Slaskiej Akademii Medycznej w Zabrze-
Rokitnicy (Kierownik: doc. dr. M. Krause).

KUBACKI, Jozef; STEPLEWSKI, Zenon; SOCHANSKI, Roman; KUBACKI, Andrzej

Effect of thyroxin on the morphology and catecholamine content
of the adrenal medulla. Pol. arch. med. wewnet. 35 no.4:491-496
'65.

1. Z I Kliniki Chorob Wewnetrznych Slaskiej AM (Kierownik: prof.
dr. med. J. Japa) i z Zakladu Biologii Nowotworow Instytutu Onko-
logii w Gliwicach (Kierownik: doc. dr. med. M. Chorazy).

MARTINSON, G.G.; SOCHAVA, A.V.

Possibility of the wide utilization of freshwater fauna
of mollusks for the division of Cretaceous continental
formations in Central Asia. Dokl. AN SSSR 153 no.5:1145-
1148 D '63. (MIRA 17:1)

1. Laboratoriya geologii dokembriya AN SSSR. Predstavleno
akademikom D.V. Nalivkinym.

SOCHAVA, A.V.

Cyclicity of sedimentation in the Fergana Depression in the
Cretaceous. Dokl. AN SSSR 161 no.4:944-946 Ap '65. (MIRA 18:5)

1. Laboratoriya geologii dokembriya AN SSSR. Submitted March 25,
1964.

SOCHAVA, A.V.; MARTINSON, G.G.; Prinimala uchastiye ZHZRNYL'SKAYA,
G.I.

[Continental Cretaceous deposits of Fergana] Melovye konti-
nental'nye otlozheniya Fergany. Moskva, Nauka, 1965. 153 p.
(MIRA 18:10)

1. Akademiya nauk SSSR. Otdeleniye nauk o Zemle.

SOCHAVA, B.V.

Vegetation cover of the U.S.S.R. and adjacent countries shown
on the map for higher educational institutions. Vest.Len.un
11 no.18:79-90 '56. (MLRA 9:12)

(Phytogeography)

AUTHOR:

SOCHAVA, I.V., TRAPEZNIKOVA, O.N.

PA - 3042

TITLE:

The Heat Capacity of Chain-Like Structures at Low Temperatures.

PERIODICAL:

(Teployemkost tseplnykh struktur pri nizkikh temperatur, Russian)
Doklady Akademii Nauk SSSR, 1957, Vol 113, Nr 4, pp 784-786 (U.S.S.R.)

ABSTRACT:

Received: 6 / 1957 Reviewed: 7 / 1957
For the purpose of a further precise explanation of the character of the temperature dependence of the heat capacity of the chain-like structures at low temperatures the heat capacities of polyethylene within the interval of from 58 to 273° K and of polyvinyl alcohol in the interval of from 58 to 245° K was measured by the authors. Polyethylene and polyvinyl alcohol are organic linear polymers with a strong valence interaction of the atoms along the chain and with a weaker molecular interaction between the chains. One of the usual vacuum calorimeters was used for the work. The samples were kept in a glass cylinder filled with helium. Temperatures were measured by means of a platinum thermometer. The samples consisted of finely divided pieces of not more than 1 mm³ volume. The samples were technically pure. - The attached table does not contain the experimental values of the heat capacity but the values computed from the smoothed experimental curve. Conclusions as to the character of the temperature dependence are best drawn from the inclination of the curve lgC with respect to the axis lgT. Within that temperature domain, in which the interaction of the chains may be neglected, the heat capacity may be

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AUTHORS: Sochava, I. V., Trapeznikova, O. N. SOV/54-58-3-7/19

TITLE: Internal Rotation and Specific Heat of Some Polymers at Low Temperatures (Vnutrenneye vrashcheniya i teployemkost' nekotorykh polimerov pri nizkikh temperaturakh)

PERIODICAL: Vestnik Leningradskogo universiteta. Seriya fiziki i khimii, 1958, Nr 3, pp 65-72 (USSR)

ABSTRACT: In order to investigate thoroughly the internal rotation in polymethyl methacrylate (PMMAC) the temperature dependence of its specific heat and of the specific heat of methyl methacrylate (MMAC) in the range of low temperatures was examined in the present paper. The specific heat of polystyrene was investigated in the range of from 60 to 200 K. Pertaining experimental data are given in table 1. They show the specific heat which is caused by the acoustic spectrum of the polymer and by the intramolecular vibrations of the side groups. Beneath the rotation vibrations also valence and deformation vibrations of the ether group in PMMAC and of the benzene ring in polystyrene belong to the intramolecular vibrations. In the investigation the Raman spectra ascertained by Roy (Refs 4, 5) were employed; the

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SOV/54-58-3-7/19

Internal Rotation and Specific Heat of Some Polymers at Low Temperatures

specific heats corresponding to these spectra were computed according to the Einstein (Eynshteyn) formula (Table 2). The additional specific heat observed in PMMAC in the range 60 - 130°K is assumed to be caused by the excitation of rotation oscillations in the CH₃ group which modify the anisotropy of the molecule. On the curve of MMAC an additional specific heat was observed as well. Its maximum is displaced somewhat towards lower temperatures. The presence of an additional specific heat in polystyrene was unexpected as the internal rotation of the benzene rings about the C-C axis should meet considerable steric resistance. The excitation of rotation vibrations in the benzene ring in polystyrene agrees with Zhurkov's conception (Ref 7). To obtain at least approximative data on the specific heat that is connected with the acoustic spectrum the tables by Pitzer (Pittser)(Ref 2) were employed. The starting point of the investigation was the specific heat of polyethylene; Θ (Table 3) and the specific heats, connected with the acoustic spectrum were computed for all polymers the experimental values of the specific heat of which are known. The difference between experimental and theoretical values in all

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Internal Rotation and Specific Heat of Some Polymers at Low Temperatures

SOV/54-58-3-7/19

cases was not more than 7 %. A comparison of the specific heats of PMMAC (Fig 3) and of polystyrene (Fig 4) confirms the correctness of the assumptions. As their molecular weight in grams is almost equal (100 and 104) their curves are similar as well. The good agreement of experimental and theoretical results in a wide range of temperatures proves the validity of the linear law for the specific heat. There are 4 figures, 3 tables, and 9 references, 5 of which are Soviet.

SUBMITTED: March 5, 1958

Card 3/3

SOCHAVA, I.V.; TRAPEZNIKOVA, O.N.

Internal rotation and heat capacity of some polymers at low
temperatures [with summary in English]. Vest. LGU 13 no.16:
65-72 '58. (MIRA 11:11)
(Polymers--Molecular rotation) (Heat capacity)

54800

5(4)

AUTHOR:

Sochava, I. V.

67958

SOV/20-130-1-36/69

TITLE:

The Specific Heat of Linear Polymers at Low Temperatures

PERIODICAL:

Deklady Akademii nauk SSSR, 1960, Vol 130, Nr 1, pp 126-128 (USSR)

ABSTRACT:

The investigation of the temperature dependence of the specific heat was carried out in the range of the boiling point of hydrogen where, according to Refs 1, 2, the interaction between the chains is apparently felt. The experiments were made with polyethylene and trifluoroethylene. The adiabatic calorimeter used for the measurements is described in reference 3. The platinum thermometer was constructed from spectrally pure Pt type IONKh-5 according to the thermometer of P. G. Strelkov (Ref 4), and calibrated according to another thermometer of the same type. Table 1 gives the experimental data, figure 1 the results of the logarithmic scale. If the interdependence between specific heat and temperature is represented in the form

$C = AT^m$, m is greater than unity for polyethylene in the temperature range investigated ($17 - 60^\circ\text{K}$) which, according to references 1, 2, 6 indicates an interaction of the chains. For trifluoroethylene¹ specific heat is determined in the range

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The Specific Heat of Linear Polymers at
Low Temperatures

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SOV/20-130-1-36/69

23 - 120°K. Here m decreases from 1.3 at 23°K to 1 at 30°K, at
35°K it is only 0.65 - 0.70 and then remains rather constant 0.8
up to 120°K. This is said to be due to the rocking vibrations
of the groups CF_2 and CFH. On the whole the approximate linear

course of the curves $\log c_p$, $\log T$ agrees well with the
assumptions by V. V. Tarasov (Ref 6). The experimental data
however indicate that the rocking vibrations lead to considerable 4
deviations. In conclusion it is mentioned that the author thanks
Corresponding Member AS USSR A. I. Shal'nikov for having offered
him the possibility of making the measurements at the Kafedra
fiziki nizkikh temperatur (Chair of Low Temperature Physics) of
the Moskovskiy gosudarstvennyy universitet (Moscow State
University), furthermore, O. N. Trapeznikova for advice given and
A. S. Borovik-Romanov for the production of the platinum thermo-
meter. There are 1 figure, 1 table, and 8 references, 6 of which
are Soviet.

PRESENTED: 1959 by A. F. Ioffe, Academician

SUBMITTED: July 15, 1959

Card 2/2

24065

S/054/61/000/002/003/005
B101/B207

Specific heat of ...

incorrect calculation of the thermal capacity of the empty calorimeter. If, for the temperature dependence of the specific heat, the equation $C = AT^m$, is written down, $m = 1.6$ for PS between $16 - 20^\circ\text{K}$ and decreases continuously to 0.78 at 40°K . Further temperature increase to 160°K entails only a slight change ($m = 0.75$). In the case of PMMA, m decreases continuously between $16 - 60^\circ\text{K}$ from 1.6 to 1.2 . Above 40°K , the temperature dependence of the specific heat is linear. The values of the specific heat of PS in the range $16 - 50^\circ\text{K}$ are higher than those of PMMA. This is due to the heavy benzene cycle of PS and its lower torsional frequencies. The values of the specific heat of PMMA above 50°K which are higher than those of PS, are explained by the torsional vibrations of the two methyl groups around the C_3 axis and of the ester-methyl group around the $\text{C}-\text{O}$ bond. The author thanks A. I. Shal'nikov, Corresponding Member AS USSR, for the permission to carry out the measurements at the kafedra fiziki nizkikh temperatur of MGU (Department of Low-temperature Physics, Moscow State University) as well as O. N. Trapeznikova for a discussion.

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21065

Specific heat of ...

S/054/61/000/002/003/005
B101/B207

There are 1 figure, 1 table, and 6 references: 4 Soviet-bloc and 2 non-Soviet-bloc. The 2 references to English-language publications read as follows: C. W. Bunn, J. Polym. Sci., 16, no. 82, 1955; A. Odajima et al., J. Phys. Soc. Japan, 12, 272, 1957

Table: Specific heat of PS and PMMA (maximum error, 1%). Legend: 1) C_p , cal/g.deg; 2) PS; 3) PMMA.

$T^{\circ}\text{K}$	$\textcircled{1} C_p \text{ кал/г-град}$		$T^{\circ}\text{K}$	$\textcircled{2} C_p \text{ кал/г-град}$	
	$\textcircled{1} \text{ ПС}$	$\textcircled{3} \text{ ПММА}$		$\textcircled{2} \text{ ПС}$	$\textcircled{3} \text{ ПММА}$
16	0,017 (6)	0,013 (2)	49	0,063 (1)	0,064 (8)
17	0,019 (5)	0,014 (4)	50	0,064 (1)	0,066 (4)
18	0,021 (4)	0,015 (8)	51	0,065 (1)	0,067 (9)
19	0,023 (2)	0,017 (3)	52	0,066 (0)	0,069 (5)
20	0,025 (1)	0,018 (9)	53	0,067 (0)	0,071 (0)
21	0,026 (9)	0,020 (3)	54	0,067 (9)	0,072 (5)
22	0,028 (7)	0,021 (9)	55	0,068 (3)	0,074 (0)
23	0,030 (5)	0,023 (5)	56	0,069 (7)	0,075 (7)
24	0,032 (1)	0,025 (3)	57	0,070 (5)	0,077 (4)
25	0,033 (7)	0,026 (9)	58	0,071 (4)	0,079 (2)
26	0,035 (4)	0,028 (6)	59	0,072 (3)	0,080 (8)
Card 3/4	27	0,036 (9)	0,030 (3)	60	0,073 (3) 0,082 (6)

SOCHAVA, I.V.

Specific heat of polymethyl methacrylic acid and polystyrene at low
temperatures. Vest.IGU 16 no.10:70-72 '61. (MIRA 14:5)
(Styrene polymers--Thermal properties)
(Methacrylic acid--Thermal properties)

SOCHAVA, I. V.

Dissertation defended for the degree of Candidate of Physicomathematical Sciences at the Institute of High-Molecular Compounds in 1962:

"Investigation of the Thermal Stability of Linear Polymers at Low Temperatures."

Vest. Akad. Nauk SSSR. No. 4, Moscow, 1963, pages 119-145

GOTLIB, Yu.Ya.; SOCHAVA, I.V.

On the theory of the heat capacity of linear polymers at low
temperatures; vibration spectrum and heat capacity. Dokl. AN SSSR
147 no.3:580-583 N '62.
(MIRA 15:12)

1. Leningradskiy gosudarstvennyy universitet im. A.I. Zhdanova.
Predstavлено академиком V.A. Fokom.
(Polymers—Thermal properties)

SOCHAVA, I. V.

Thermal motion in linear polymers at low temperatures. Vest.
(MIRA 17:7)
LGU 19 no.10:56-64 '64.

SOCHAVA, L.S.

Improvement in the accuracy and stability of the readings of an
oxyhemograph. Med.prom. no.4:26-30 O-D '55. (MLRA 9:12)

1. Mediko-instrumental'nyy ordena Lenina zavod "Krasnogvardeyets."
(OXYGEN, in blood
arterial saturation, determ. with oxyhemograph,
improvement of accuracy & stability)
(HEMATOLOGY, appar. and instruments
oxyhemograph, improvement of accuracy & stability)

Sochava, L. S.

Germanium Bolometers with Low Inertia. Y. N. Bozorgmehr,
Yu. V. Ilisavsky, M. Kornfel'd, L. S. Sochava, and R. I. Strunin
(*Zhur. Tekhn. Fiziki*, 1957, **27**, (1), 213-215).—[In Russian]. A
letter. A method is described for the prepa. of Ge thermal-
bolometer elements by evaporation *in vacuo*. The sensitive
elements are ~ 1 mm.² and have Ag contacts with a resistance
between contacts of $1-3 \times 10^6 \Omega$. The sensitivity $\approx 60-70$ V/W.
input and the signal/noise ratio is ~ 4 times better than for similar-
sized thermal bolometers. The relaxation time $\approx 3.4 \times 10^{-3}$ sec.
—A. F. R.

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24(3)

67388

SOV/181-i-9-6/31

AUTHORS: Kornfel'd, M. I., Sochava, L. S.TITLE: Fluctuations of Conductivity in Solid and Liquid Antimony
Sulfide

PERIODICAL: Fizika tverdogo tela, 1959, Vol 1, Nr 9, pp 1366 - 1369 (USSR)

ABSTRACT: The present paper gives an account of the investigation of these fluctuations in a wide temperature range, which includes the liquid state of the semiconductor (Sb_2S_3). Sb_2S_3 is, according to V. A. Yurkov, a semiconductor also in the liquid state and furthermore it has a relatively low melting point ($550^{\circ}C$). The Sb_2S_3 was prepared by melting antimony and sulfur in a stoichiometric ratio in pumped quartz ampuls. The experiments proper were made in an ampul of difficultly meltable glass with four tungsten electrodes. The fluctuation voltage was measured between the potential electrodes of the sample. According to the results of the provisional experiments there occurs a so-called excess noise of the amperage in Sb_2S_3 , and it holds $\sqrt{\Delta V^2} = \eta \frac{1}{\sqrt{f_m}} V^n \sqrt{\Delta f}$. Here, $\sqrt{\Delta V^2}$ denotes the measur-

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Fluctuations of Conductivity in Solid and Liquid
Antimony Sulfide

SOV/181-1-9-6/31

was found. The temperature dependence of the intensity of fluctuations was measured in the temperature range 180 to 580°C. In this temperature range $\lg \eta$ depends (in which connection $\eta = \frac{\sqrt{\Delta V^2}}{V} \sqrt{\frac{f}{\Delta f}}$ holds) almost linearly on temperature. Control measurements made in the same temperature range on samples having a purity degree of 99.99% yielded very similar results with respect to the current noise and also with respect to the temperature dependence. The fluctuations of conductivity at ~ 200°C ($\eta = 4 \cdot 10^{-6}$) are by 1.5 - 2 orders larger than in semiconductors. The most interesting, however, is the exponential dependence of the amount of fluctuations on temperature. In the temperature range investigated here the amount of fluctuations decreases by thousand times. There is a clear parallelism for the temperature dependence of the noise level and the resistivity in one and the same sample. Also the low level of current noise in liquid antimony sulfide is to be pointed out. There are 4 figures and 2 Soviet references.

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24(3), 24(6)

67389
SOV/181-1-9-7/31

AUTHORS: Kornfel'd, M. I., Sochava, L. S.

TITLE: Fluctuations of Conductivity in Amorphous Semiconductors

PERIODICAL: Fizika tverdcgo tela, 1959, Vol 1, Nr 9, pp 1370 - 1371 (USSR)

ABSTRACT: As has been shown by Brophy (Ref 1), structural disturbances in germanium crystals caused by plastic deformation lead to an increase in conductivity fluctuations (current noise). One can therefore assume that these fluctuations will be especially large in greatly disturbed (e.g. amorphous) structures. To prove this, the authors measured the amount of current noise in the following amorphous semiconductors: $Tl_2Te \cdot As_2Te_3$ and $Tl_2Se \cdot As_2Te_3$ (the samples were prepared by B.T. Kolomyets and T. N. Mamontov). The first-mentioned sample had the following characteristics: resistivity: 15 ohm.cm, width of the forbidden zone: 0.59 ev, concentration of majority carrier (holes): $4 \cdot 10^{18} \text{ cm}^{-3}$ (at 20°C), its mobility: $0.1 \text{ cm}^2/\text{v.sec}$. The current noise measurement was made by the four-electrode method at 1400 cps. The setup used is described

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Fluctuations of Conductivity in Amorphous
Semiconductors

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in reference 3. The temperature during measurement was in the range from +20 to -85°C. Because of the considerable thermal noise, only the upper limit of the current noise was determined. It was found to be $3 \cdot 10^{-10}$ cps^{-1/2}. The current noise of the second sample ($\rho = 250$ ohm.cm at 20°C) was measured in the range from +20 to -55°C. Voltage fluctuations did not exceed $3 \cdot 10^{-10}$ cps^{-1/2}. Hence, the current noise is by 4 - 5 times weaker than thermal noise even in the case of the highest voltages. There are 3 references, 2 of which are Soviet.

ASSOCIATION: Institut poluprovodnikov AN SSSR Leningrad (Institute of
Semiconductors of the AS USSR, Leningrad)

SUBMITTED: November 14, 1958

Card 2/2

S/181/60/002/01/04/035
B008/B011

AUTHORS: Sochava, L. S., Mirlin, D. N.

TITLE: The Relation Between Surplus Noise in Germanium and the Surface Traps ✓
PERIODICAL: Fizika tverdogo tela, 1960, Vol. 2, No. 1, pp. 23 - 25

TEXT: The model devised by A. L. McWhorter (Ref. 1) was tested. For this purpose, the authors compared the forms of frequency characteristics of the field effect and of the spectrum of the surplus noise, that were measured on equal samples. Measurements were made on n-type germanium samples with a resistivity of about 20 ohm-cm. They were cut out with the aid of a magnetostriction ultrasonic tool (Fig. 1). The frequency dependence of the field effect was measured in the range 0.01×10^4 cps. The typical frequency characteristics of the field effect are shown in Fig. 2 on a semilogarithmic scale. The calculated frequency characteristics are shown in Fig. 3. The experimental results obtained are not explainable from the standpoint of the model, suggested ✓B

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The Relation Between Surplus Noise in
Germanium and the Surface Traps

S/181/60/002/01/04/035
B008/B011

by McWhorter, of the formation of surplus noise in germanium. The au-
thors thank M. I. Kornfel'd for his discussion of results. There are
3 figures and 5 references: 2 Soviet.

ASSOCIATION: Institut poluprovodnikov AN SSSR, Leningrad (Institute
of Semiconductors, AS USSR, Leningrad)

SUBMITTED: May 14, 1959

✓B

Card 2/2

S/0181/63/005/012/3594/3606

ACCESSION NR: AP4004870

AUTHORS: Bir, G. L.; Sochava, L. S.

TITLE: Intensity of allowed and forbidden EPR lines of Mn²⁺ in SrCl₂

SOURCE: Fizika tverdogo tela, v. 5, no. 12, 1963, 3594-3606

TOPIC TAGS: EPR, electron paramagnetic resonance, EPR line, forbidden EPR line, allowed EPR line, manganese doped strontium chloride, EPR line intensity, forbidden line, allowed line, manganese 2 +, strontium chloride

ABSTRACT: The authors have made experimental investigations on the angular dependence of the intensity of allowed and forbidden electron paramagnetic resonance lines for the axial spectrum of Mn²⁺ in a single crystal of SrCl₂. The data obtained have been compared with computations of angular dependence of line intensities on the basis of the theory previously proposed by Bir (FTT, 5, 2236, 1963). It is shown that this theory not only explains all the principal qualitative features of the phenomenon, but it is generally in full quantitative agreement with experimental data. It correctly describes the general behavior of the angular dependence of the indicated lines, and, in particular, it predicts the intensity

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ACCESSION NR: AP4004870

maximums of allowed lines at angles of 0 and 90. It predicts which allowed line will suffer for the growth of a forbidden line. The experiments show that though the intensity of an allowed line diminishes at 12° to $1/3$ its value, the total intensity of all three lines remains constant. The data very convincingly show that the decrease in intensity of allowed lines is associated solely with increase in intensity of forbidden lines. The theory also explains the sharper angular dependence of spectra having larger values of axial splitting, and it explains the differences between angular dependence of line intensities for various electron transitions and the different rates of intensity change in hyperfine components corresponding to different nuclear transitions. Only one minor deviation between theory and experiment was observed: the intensity of allowed lines declines and the intensity of forbidden lines increases more rapidly than theory indicates. A correction is proposed for this, based on assumptions made in the theory. "The authors express their sincere gratitude to M. I. Kornfel'd for his many valuable suggestions and discussions." Orig. art. has: 7 figures and 16 formulas.

ASSOCIATION: Institut poluprovodnikov AN SSSR, Leningrad (Institute of Semiconductors AN SSSR)

Card 2/BY

ACCESSION NR: AP4043375

S/0181/64/006/008/2478/2488

AUTHORS: Bir, G. L.; Butikov, Ye. I.; Sochava, L. S.

TITLE: Intensity of lines of electron paramagnetic spectrum of ions in a cubic crystal field

SOURCE: Fizika tverdogo tela, v. 6, no. 8, 1964, 2478-2488

TOPIC TAGS: electron paramagnetic resonance, hyperfine structure, angular dependence, cubic crystal, calcium fluoride, europium

ABSTRACT: This is a continuation of earlier research by some of the authors on the theory of the intensity of allowed and forbidden hyperfine EPR spectral components (G. L. Bir, FTT, v. 5, 2236, 1963) and on experimental investigations of the angular dependence of the intensity of EPR lines in an axial crystal-line field (G. L. Bir and L. S. Sochava, FTT, v. 5, 3594, 1963). The present study is devoted to the intensity of hyperfine lines of the EPR spectrum

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ACCESSION NR: AP4043375

of ions in a cubic crystalline field. Formulas are derived, in the strong magnetic field approximation, for the dependence of the intensity of the hyperfine components of the EPR spectrum on the direction of the magnetic field relative to the crystal axis, and for the intensities of all the allowed and forbidden lines. It is shown that the angular dependence of the intensity is stronger for ions with a larger level splitting in the crystalline field, so that the experimental study of the angular dependence of the line intensities was made using the Eu^{2+} ion in the cubic crystal CaF_2 . Since the strong magnetic field approximation results in this case in noticeable errors, the theory previously developed by the author is used to obtain exact numerical values of the hyperfine component intensities. The results of these calculations are in good agreement with all the obtained experimental data on the angular dependence of the intensities of the allowed and forbidden lines.
"The authors thank M. I. Kornfel'd for a discussion of the results."
Orig. art. has: 6 figures and 15 formulas.

Card 2/3

L 16341-65 EWT(1)/EEC(t) Peb IJP(c)/ESD(t)/RAEM(i)/RAEM(c)/SSD/
ESD(gs)/AFWL/ASD(a)-5/AS(mp)-2 GG

ACCESSION NR: AP5000656

S/0181/64/006/012/3594/3600.

AUTHOR: Bir, G. L.; Butikov, Ye. I.; Sochava, L. S.

B

TITLE: Angular dependence of hyperfine splitting of EPR lines of ions in a cubic
crystalline field

SOURCE: Fizika tverdogo tela, v. 6, no.12, 1964, 3594-3600

TOPIC TAGS: electron paramagnetic resonance, hyperfine splitting, angular dependence,
cubic crystal, crystal field

ABSTRACT: The angular dependence of the hyperfine splitting of allowed and forbidden
EPR lines of ions in a cubic crystalline field is investigated theoretically and experi-
mentally on the basis of earlier studies by the authors (FTT v. 5, 2236, 1963 and v. 6,
2478, 1964). The ions in question are E^{2+} and the cubic field is in the CaF_2 crystal.
The present calculations are found to be in good agreement with the earlier experimental
results. It is noted that a noticeable angular dependence of the hyperfine splitting of

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ACCESSION NR: AP5000565

allowed lines can be observed also in the presence of noncubic crystalline field and the resultant apparent anisotropy of the hyperfine interaction constant must be taken into account in experimental investigations of the anisotropy of the hyperfine constant. The results for the forbidden transition are also in agreement with the experimental data.
Orig. art. has: 3 figures, 13 formulas, and 1 table.

ASSOCIATION: Institut poluprovodnikov AN SSSR Leningrad (Institute of Semiconductors AN SSSR)

SUBMITTED: 17Jun64

ENCL: 00

SUB CODE: SS, NP

NR REF SOV: 002

OTHER: 001

Card 2/2

L 6454-66 EWT(1)/EWT(m)/EPF(c)/EPF(n)-2/EWP(j)/T/EWP(t)/EWP(b) IJP(c)
ACCESSION NR: AP5019855 JD/JW/GG/RM UR/0181/65/007/008/2391/2396

AUTHOR: Kornfel'd, M. I.; Sochava, L. S.

TITLE: Complexes of Mn²⁺ and F⁻ impurity ions in strontium chloride crystals

SOURCE: Fizika tverdogo tela, v. 7, no. 8, 1965, 2391-2396

TOPIC TAGS: strontium compound, magnesium, fluorine, crystal impurity, intermolecular complex, EPR spectrum, crystal symmetry

ABSTRACT: The purpose of the investigation was to check whether complex ions can be made up of two impurity ions in the case when the two ions have the same charge as the corresponding regular lattice points. To this end, the EPR method was used to observe the formation of two types of complexes in SrCl₂ crystals (cubic lattice of the fluorite type), Mn²⁺-F⁻ and Mn²⁺-2F⁻. The SrCl₂ single crystals were grown from powder by a procedure described by the authors elsewhere (FTT v. 5, 2232, 1963). The measurements were made in the 3-cm band with an RE-1301 spectrometer at 77 and 300K. Tests were made to determine the solubility of the fluorine in the SrCl₂ as a function of the temperature and the heat treatment of the sample. This was followed by investigations of the dependence of the axial and rhombic EPR spectra on the fluorine concentration. The results show that both spectra are due to the presence of fluorine ions in the nearest surrounding of the Mn²⁺, the axial

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ACCESSION NR: AP5019855

spectrum being due to the complex with one F⁻ ion, and the rhombic to the complex with two F⁻ ions. The effect of the fluorine ions on the crystalline-field symmetry is discussed. It is also shown that alignment of the fluorine ions with the manganese ions is energetically more favored than an arrangement corresponding to the regular lattice. "The authors thank G. L. Bir for useful advice." Orig. art. has: 3 figures.

ASSOCIATION: Institut poluprovodnikov AN SSSR, Leningrad (Institute of Semiconductors, AN SSSR)

SUBMITTED: 01Mar65

ENCL: 00

SUB CODE: SS

NR REF Sov: 007

OTHER: 008

44, 85

nw

Card 2/2

SOCHAVA, V.

"Geography of Mongolia." Izv. Vses. geog. ob-va 96 no.5:
440-441 S.O. '64.
(MIRA 17:12)

SOCHAVA, V.; KLEOPOV, I.

"Problems in the geography of the Far East." Reviewed by V.Sochava,
I.Kleopov. Izv. Vses. geog. ob-va 93 no.6:546-548 N-D '61.
(MIRA 15:1)

(Soviet Far East--Geography)

BOCHAVA, V. B.

"Fratriae of the Plant Formations of the USSR and Their Phylocoenogeny," Dok. AN, 47,
No. 1, 1945; Section of Geobotany. Botanical Inst. Mbr. Acad. of Sci. ССР 1944.

"APPROVED FOR RELEASE: 08/25/2000

CIA-RDP86-00513R001651910015-2

KOCHANOV, V. P.

"Ecological Relicts of Manchurian Flora Considered in Connexion with Certain Palaeogeographical Restoration," 48, No. 9, 1945. Geobotanical Dept., V. L. Komarov Botanical Inst.; Acad. Sci., -1944-.

APPROVED FOR RELEASE: 08/25/2000

CIA-RDP86-00513R001651910015-2"

SOCHAVA, V.B.

Mbr., Botanical Institute, Acad. Sci., 1947

"Position of Some Remains of Ancient Flora in Contemporary Phytocenozoics of the Caucasus,"
Dok. AN, 56. No.3, 1947

SOCHAVA, V. R.
25L69

Razlichnye Puti Geobotanicheskogo Razdeleniya Zemnoy Poverkhnosti i ikh
Samostoyatelnoe Znachenie. Izlozhenie Doklada Vo Vsesoyuz.
Gotan. o-ve 3 Dek. 1947 G. Botan. Zhurnal, 1948, No. 1, s. 156-57

SO: LETOPIS NO. 30, 1948

SOCHAYA, V. B.

USSR/Medicine - Botany
Medicine - Plants

Mar/Apr 46

"Problem of Conformity to Natural Laws of Geographic Distribution of Vegetation at the Coming All-Union Botanical Convention," Ye. M. Lavrenko, V. B. Sochaya,
1 p

"Botan Zhur" No 2

Mentions three assignments to scientists of the All-Union Bot Soc on which reports are to be submitted at society's next meeting: (1) the phytogeosphere and its status in the earth's system, (2) basic geographical regularities of vegetative cover, and (3) sectionalizing and mapping of USSR plant life.

PA 28/l9T67

PA 28/49168

SOCHAVA, V. B.

USSR/Medicine - Botany
Medicine - Environment

Mar/Apr 48

"Problems of Contents and Methods of Geobotany,"
V. B. Sochava, 5 pp

"Botan Zhur" No 2

Comments on two articles that appeared independently yet discussed same subject (Korchagin, "Vest Lenin-grad U" No 5, 1947, and Shennikov, "Botan Zhur" Vol XXXIII, No 1, 1948). Both articles contain comprehensive analysis of present problems in botany. Sochava urges that facts be studied and acted on as quickly as possible.

28/49168

SOCHAVA, V. R.

Sochava, V. R. "Some data on the inversion of vegetative associations in connection with the problems of vegetative inversions in general," Uchen. zapiski (Leningr. gos. ped. in-t im. Pokrovskogo), Vol. VI, 1948, p. 82-98 - Bibliog: 3^o items

SC: U-3^o50, 16 June 53, (Leto is Zhurnal 'nykh Statey, No. 5, 1949).

PA 36/49T36

SOCHAVA, V. B.

USSR/Medicine - Botany
Medicine - Environment

Jan/Feb 48

"Consideration of Problems of the Geobotanical
Division of the Earth's Surface" 1 $\frac{1}{2}$ pp

"Botan Zhur" Vol XXXIII, No 1

All-Union Bot Soc met 3 Dec 47. Summarizes reports
of particular interest, including: V. B. Sochava's
"Various Methods for the Geobotanical Division of
the Earth's Surface and Their Significance," and
Ye. M. Lavrenko's "The Principles of the Botano-
geographical Division of the Palearctic Region."

36/49T36

SUCHAVA, V. B.

21602 SUCHAVA, V. B. Elementy dreune -kolknidskoy rastitel'nosti metofil'nogo
tipa i proiskhozhdeniye bukovykh lesov na kavkaze. (rezisy doklada)
Trudy vtorogo Vsesojuz. geogr. s"vezda. T. 34. n. 1942, s. 164 -65.

SO: Letopis' zhurnal'nykh Statey, No. 29, moskva, 1949

SOONAVI, V. B.

"Origin of Beech Trees of the Caucasus" Iz. Ak. Nauk SSSR, Ser. Biol. 2, 1949. Botanical Inst. im. V. L. Komarov, Acad. Sci., -1947..

PA 48/49T47

SOCHAVA, V. B.

USSR/Geography

Scientists - Biography
Academy of Sciences

Mar/Apr 49

"In Memory of I. M. Krasheninnikov," V. B.
Sochava, 4 pp

"Iz v-s Geograf Obshch" Vol LXXXI, No 2

Summarizes career of Prof Ippolit Mikhaylovich
Krasheninnikov, Honored Worker of Science,
eminent geographer and botanist.

48/49T47

SOCHAVA, V.B.

ANDREEV, V.N.; GALKINA, Ye.A.; IGOSHINA, K.N.; LAVRENKO, Ye.M.; RODIN, L.Ye.,
SAKHOKIA, M.F.; SEMENOVA-TYAN-SHAUSKAYA, A.M.; SOCHAVA, V.B.; SHIF-
TERS, Ye.V.; PEVZNER, R.S., tekhnicheskiy redaktor

[Vegetation map of European U.S.S.R. on a scale of 1:2,500,000;
explanatory text] Karta rastitel'nosti Evropeiskoi chasti SSSR.
m. 1:2,500,000. Poiasnitel'nyi tekst. Sost. V.M.Andreev i dr.
Pod red. E.M.Lavrenko i V.B.Sochavy. Moskva, 1950. 288 p.
(MIRA 10:7)

1. Akademiya nauk SSSR. Botanicheskiy institut.
(Phytogeography)

SOCHAVA, V.B.; LIPATOVA, V.V.

Distribution of beech in the forests of Moldavia. Geobotanika Ser. 3 no.
8:259-288 '52. (MLRA 6:6)

I. Botanicheskiy institut imeni V.L. Komarova akademii nauk SSSR.
(Moldavia-Beech)

SOCHAVA., V.B.

Botany-Geographical Distribution

Principal aspects of geobotanical zoning. V.B.Sochava. Bot. Zhur. 37 No.3 1952.
Botanicheskiy Institut im. V.L. Komarova Akademii Nauk SSSR. Recd. April 10, 1952.

SO: Monthly List of Russian Accessions, Library of Congress, Sept. 1952 1952, Uncl.